



City of Annapolis

Department of Public Works/ Department of Planning and Zoning

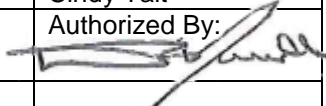
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Grease Interceptor Maintenance, Procedures, and Cleaning Logs

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| Date: 6/5/17 | Authorized By:  |
| Revised Date: | |


Grease Interceptors and Grease Recovery Devices must be maintained regularly to prevent fats, oil and grease (FOG) from discharging to the sewer system. FOG can have a detrimental impact not only on the facility, but on the environment as well. FOG clogged lines can back sewage up into the establishment and can cause sewage overflows out of manholes in parking lots and streets. **Grease Interceptors and Grease Recovery Devices operate differently and require different types of maintenance.**

GREASE INTERCEPTORS

Grease Interceptors are located in the ground outside the facility, generally sized from 500 to 2000 gallons based on fixture load. Interceptor maintenance must be determined based on the accumulated waste inside the interceptor, both solids on bottom and FOG on top. Grease interceptors by City Specification should never have a solid layer or grease layer greater than 4". However, there are other factors to consider such as temperature entering the tank, adequate capacity for separation, grease accumulation in effluent drop, and violation of the FOG limit, which will require increasing interceptor maintenance frequency.

A rule used by Pretreatment Programs across the country is the "25% rule". This is calculated by dividing the amount of solids and grease by the depth of interceptor contents. When the interceptor reaches 25% capacity, the interceptor needs pumped.

Example



Total FOG on top of interceptor = 0.5 ft.
Total solids at bottom of interceptor = 1.0 ft.
Total depth of interceptor contents = 4.0 ft.

Percentage of FOG + solids:

$$\frac{(\text{FOG} + \text{Solids})}{\text{Depth of interceptor contents}} = \frac{(0.5' + 1.0')}{4.0'} = 37.5\%$$

Does this example meet the 25% rule?

Answer: No, the 25% Rule has been exceeded and the FSE needs to increase their pump out frequency.

Measuring the contents of the interceptor is **key** in determining the starting point for Grease Interceptor maintenance.



Measuring using a Core Sampler

1. Push the tube through the contents of the interceptor to the bottom.
2. Pull tube up. Let stand approximately 1 to 2 minutes.
3. Measure the layers of grease, oil, gray water and solids.
4. Measure the depth of interceptor to content level.
5. Record information.



Measure using a Garden Hoe

1. Push the garden hoe through the contents of the interceptor to the bottom.
2. Mark a reference point on the measuring device to indicate the depth of interceptor to content level.
3. Rotate measuring device $\frac{1}{4}$ turn and slowly raise it until contact is made with the underside of the grease mat.
4. Measure the distance between the two reference points to determine the amount of grease mat.
5. Estimate the amount of oil, gray water and solids as the tank is being pumped.

Once the Grease Interceptor maintenance frequency has been established, the grease interceptor must be maintained at that frequency unless the Pretreatment Program is consulted. Haulers are expected to perform maintenance on time. **If circumstances prevent the hauler from providing maintenance on time, the required maintenance must be moved ahead of schedule to prevent FOG from entering the City Sewer System.**

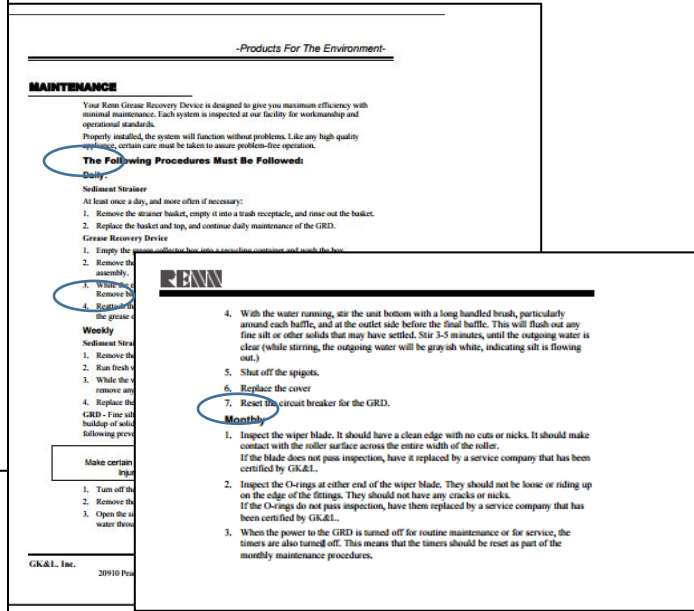
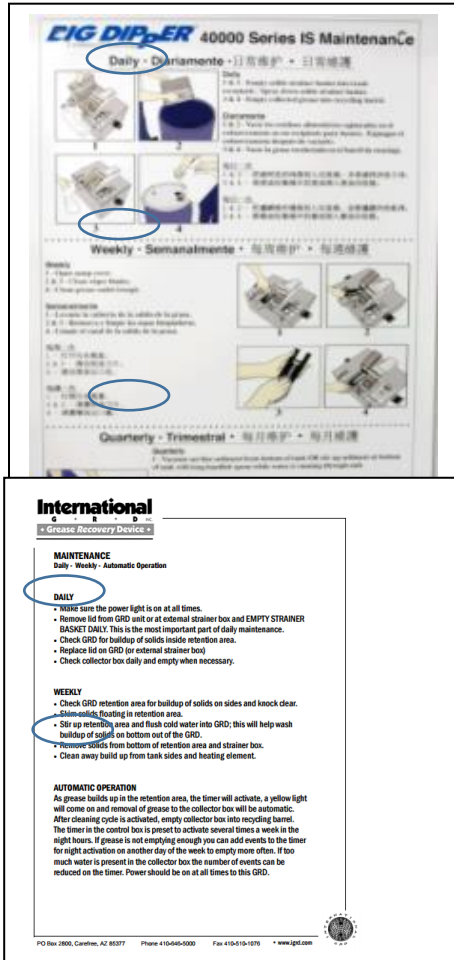
Grease Interceptor Cleaning Procedure:

1. Grease Interceptors must be cleaned during daylight hours (after 6:00 am).
2. Measure the contents of the interceptor using one of the two methods described above.
3. Record any grease build up in the effluent drop.
4. Skim the entire grease mat and debris from the top of the interceptor.
5. Skim the oil layer, estimating the amount as accurately as possible.
6. Remove the gray water from the interceptor.
7. Remove the solids off the bottom, estimating the amount as accurately as possible.
8. Scrape the walls of the interceptor and baffles, removing all grease adhering to the interceptor.
9. Use a rod to scrape all grease adhering to the T's or drops inside the interceptor.
10. Ensure that the interceptor is completely cleaned of all solids and grease. This may be done by "back flushing" the water from the pump truck or by using an alternative water source to hose down the interceptor. Water used to back flush the interceptor should never exit to the sewer.
11. The interceptor must be left empty.
12. Do not use enzymes, acids, caustics, solvents or emulsifying products when cleaning or maintaining the interceptor.
13. Inspect the grease interceptor for cracks or other defeats, and ensure that T's or drops are securely in place.
14. Clean around the surface of the interceptor, removing any debris.
15. Have the facility owner or representative verify that the interceptor has been cleaned and properly maintained.
16. Secure all manhole covers and cleanout caps.
17. Complete the Grease Interceptor Inspection Report.

18. Leave a copy of the Grease Interceptor Inspection Report with the Facility. Mail a copy to the City of Annapolis Department of Public Works.

GREASE RECOVERY DEVICES

Grease Recovery Devices are located inside the facility near the fixture it serves. These devices are automatic units that keep the grease in a liquid form, drawing the grease out of the unit to a separate container. These units require daily, weekly, monthly, and quarterly maintenance to be completed by the facility to ensure proper functioning. Routine cleaning and maintenance of GRD's can improve their efficiency and effectiveness. Consult the manufacturer's manual for cleaning practices.



If haulers witness the GRD units in an off position, missing strainer boxes or grease collection containers, they should notify the City Pretreatment Program immediately.

If the hauler is pumping the GRD, they should contact the manufacturer's representative for direction. Turning these units on or off may require the timers be reset, and lack of water in the tank could cause damage to the unit.

Pumping does not remove the need for daily and weekly maintenance performed by the facility. The hauler can help the establishment by instructing it on their responsibility to provide proper maintenance to the unit in accordance with manufacturer's specifications.